BOEM
Bureau of Ocean Energy Management

Ocean Renewable Energy Conference X

BOEM Update on Offshore Marine Hydrokinetic Projects

Doug Boren

Chief, Renewable Energy Section

Bureau of Ocean Energy Management

Pacific OCS Region

July 17, 2015 ● Portland, Oregon

BOEM's Authority

Bureau within the Department of the Interior (DOI)

- Oversees development of nation's energy and mineral resources on the Outer Continental Shelf (OCS)

OCS Lands Act of 1953 as amended, including amendments per Energy Policy Act of 2005

- Oil/gas, marine minerals (e.g., sand and gravel)
- Renewable energy (leases, easements, rights-of-way)
- Alternate use of existing OCS facilities

BOEM's Jurisdiction

OCS jurisdictional boundary typically 3-200 nautical miles from coastline

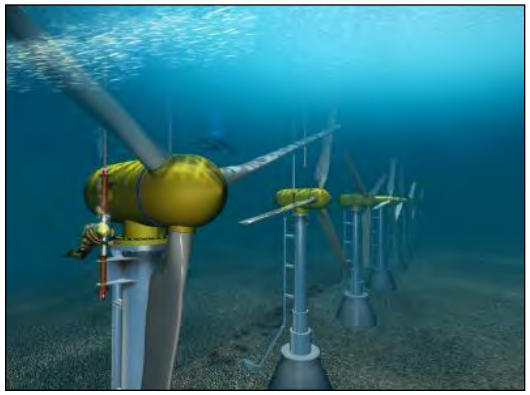
BOEM has no jurisdiction within:

- National Park System
- National Wildlife Refuge System
- National Marine Sanctuary System
- Any National Monument

BOEM
Bureau of Ocean Energy Management

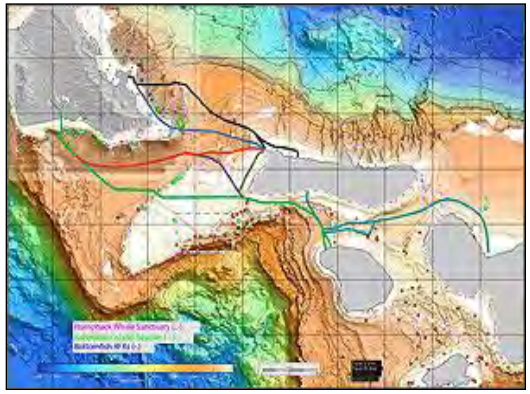
Offshore Renewable Energy Technologies

Wind



Ocean Current*

Wave*



Transmission

**BOEM is responsible for leasing areas of the OCS for ocean current and wave energy projects, and FERC regulates and issues licenses for construction and operation.*

BOEM/FERC Coordination on OCS MHK

DOI/FERC Memorandum of Understanding (April 2009)

- BOEM oversees marine and hydrokinetic (MHK) leasing on the OCS and conducts related NEPA analyses
- FERC licenses MHK project operations and conducts related NEPA analyses

Guidelines for potential OCS MHK developers

- Completed August 2009 and revised in July 2012
- http://www.boem.gov/National-and-Regional-Guidelines-for-Renewable-Energy-Activities/

OCS MHK Projects

Oregon (Task Force established in 2010)

- Pacific Marine Energy Center-South Energy Test Site (PMEC-SETS) with Oregon State University

California

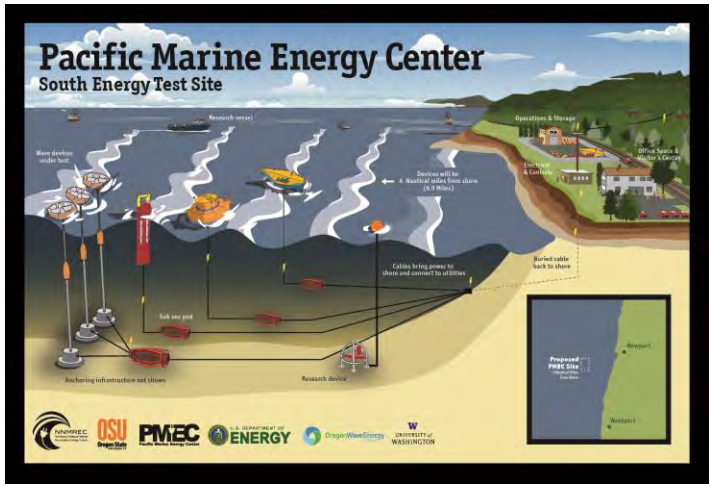
- Interest offshore with the CalWave Project proposal from California Polytechnic State University

Florida (Task Force established in 2014)

- Ocean current testing with Florida Atlantic University

PMEC-SETS

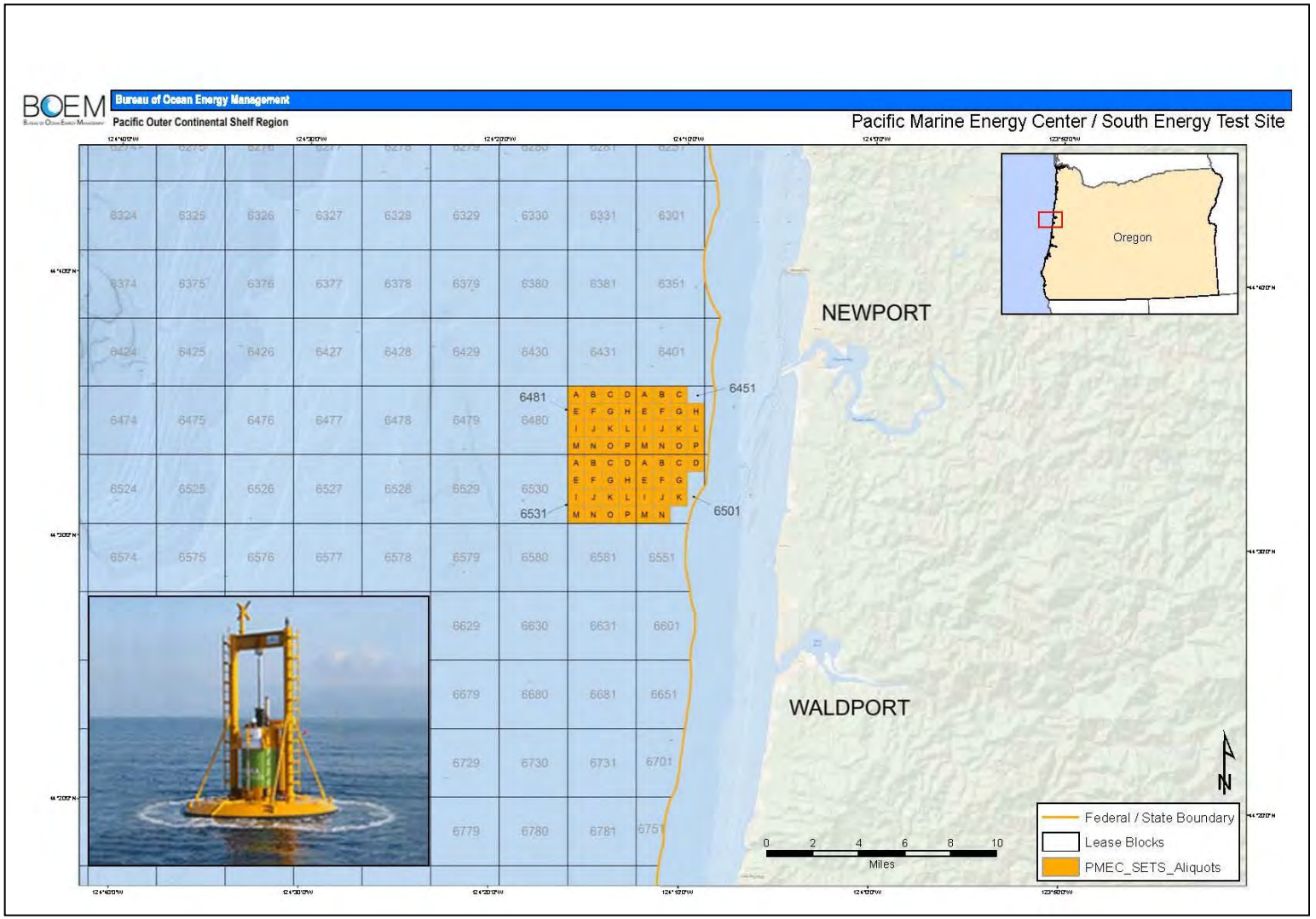
Northwest National Marine Renewable Energy Center, Oregon State University



Project Highlights:

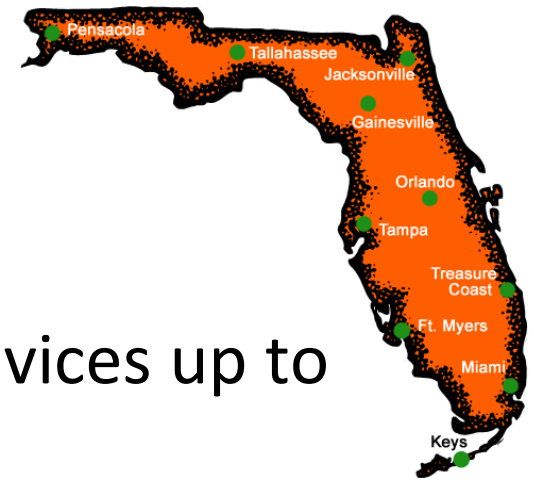
- 4 berths, 20 MW capacity
- Marine hydrokinetic research and testing facility
- ~5 nautical miles offshore Newport, Oregon
- BOEM is a member of the Collaborative Working Group established for the project
- FERC is lead agency for environmental analysis, BOEM is cooperating agency

PMEC-SETS


BOEM
Bureau of Ocean Energy Management
Pacific Outer Continental Shelf Region
Pacific Marine Energy Center / South Energy Test Site
Oregon
NEWPORT
WALDPORT
6481
6451
6531
6501
N
Federal / State Boundary
Lease Blocks
PMEC_SETS_Aliquots
0 2 4 6 8 10
Miles

Florida Atlantic University

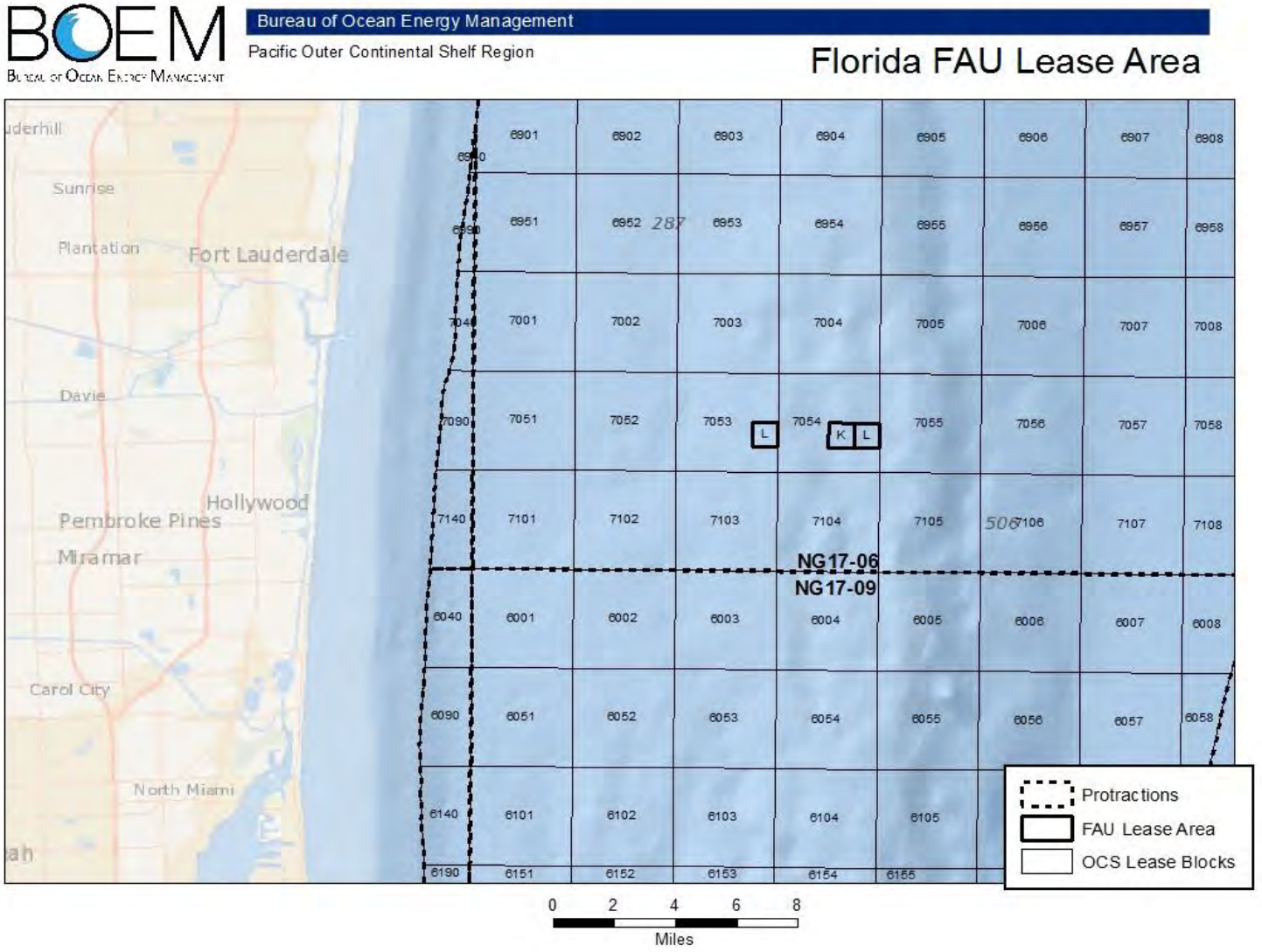
Southeast National Marine Renewable Energy Center, Florida Atlantic University



Project Highlights:

- Ocean current testing location for devices up to 100-kW and 7 meter rotor diameter
- ~15 nautical miles offshore Fort Lauderdale, Florida
- No FERC involvement since not connected to electrical grid
- BOEM executed lease effective June 1, 2014

Florida Atlantic University



WindFloat Pacific Project

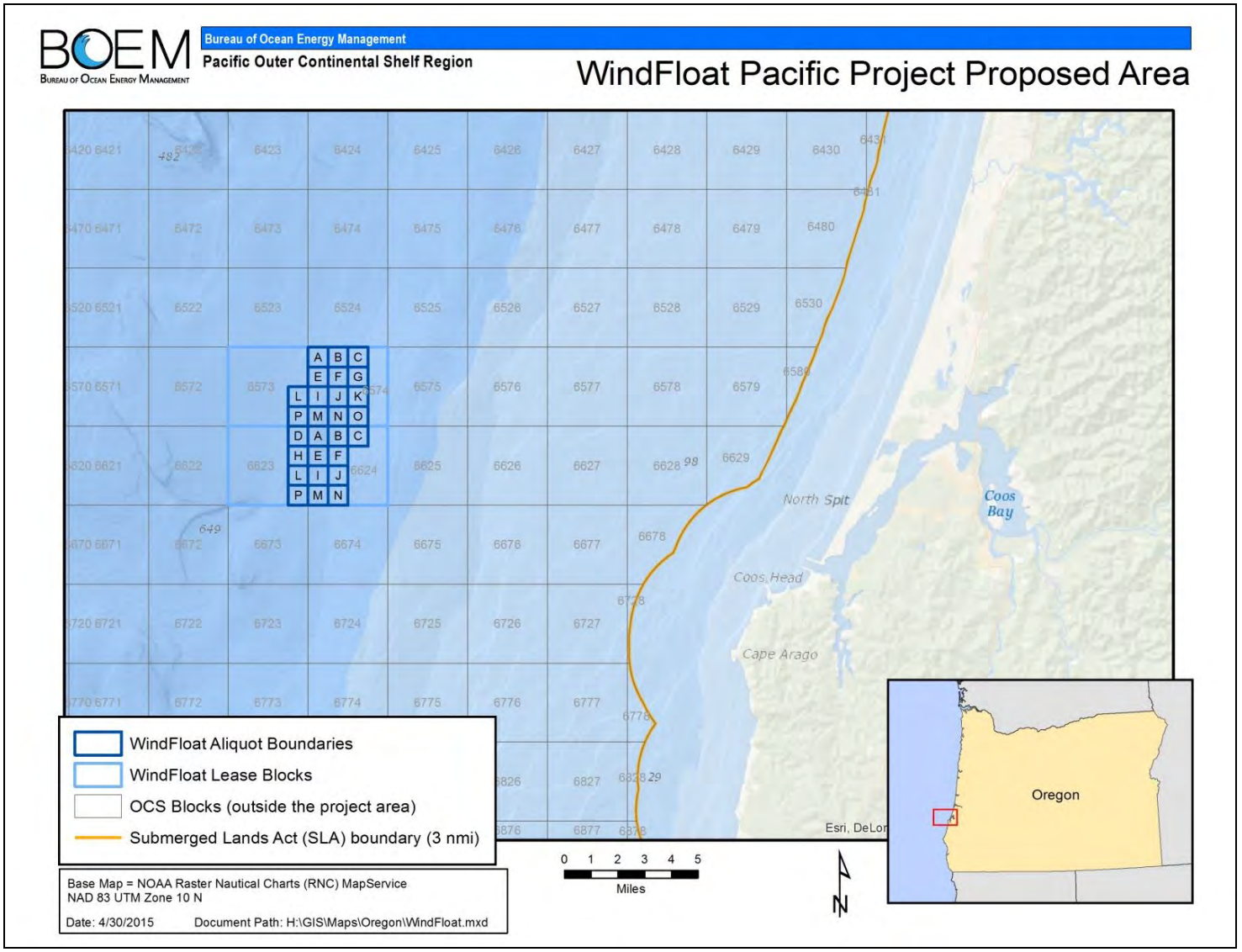
WindFloat Pacific Project,

Principle Power, Inc.

Project Highlights:

- 5 turbines, 6 MW each
- Floating foundation in > 1,200 feet water depth
- ~16 nautical miles offshore Coos Bay, Oregon
- Department of Energy (DOE) awarded funding for project to demonstrate technology
- Proposed to be operational by the end of 2017

WindFloat Pacific Project



Pacific OCS Region Contact Information

Doug Boren

Chief, Renewable Energy Section
Office of Strategic Resources
Bureau of Ocean Energy Management
Pacific OCS Region
805-384-6384
Douglas.Boren@boem.gov

For more information, please visit:
www.boem.gov